

REMARKS

The Office Action of April 13, 2010, has been carefully considered.

It is noted that claims 10-13 are rejected under 35 USC 102(b) or, in the alternative, under 35 USC 103(a) over JP 2000-095577.

Claims 16-18 are rejected under 35 USC 103(a) over JP'577.

In view of the Examiner's objection of the claims, Applicant has amended independent claim 10.

It is respectfully submitted that the claims now on file differ essentially and in an unobvious, highly advantageous manner from the composition disclosed in the references.

Turning now to the reference, it can be seen that JP'577 discloses a method for producing a hydroxylapatite-metal composite. Applicant submits that the reference does not disclose or teach the presently claimed invention.

In general, the metallic structure can be ordered or inordinate. Inordinate metal structures do not feature a long range order. In addition to this, ordered metal structures are one-dimensional, two-dimensional, or three-dimensional metal

structures. It is not obvious to provide a metal network that is a homogeneous microstructure and a three-dimensional network.

JP'577 describes a method for producing a hydroxylapatite-metal composite material that is intended to have a good mechanical strength, a high stability in water and a high compatibility to the human body. The method comprises sintering the hydroxylapatite at 700 to 1300° C and combining the thus treated hydroxylapatite with a metal, such as titanium, by means of discharge plasma sintering at approximately 600° C (see paragraph [0012]). No cross-linked material is obtained by using this method. The sintered materials cannot absorb cracks which are created by the mechanical stress of the material.

The presently claimed invention, on the other hand, provides a hydroxylapatite-metal composite material with the metal network which is a homogeneous microstructure and a three-dimensional network that is obtained by: a) producing a mixture of powdery hydroxylapatite and powdery metal; b) pre-pressing the mixture obtained in step a) to a green compact; and c) sintering the green compact obtained in step b) at a pressure of 1.4 to 7.7 GPa and a temperature of 500-900° C.

JP'577 does not teach a hydroxylapatite-metal composite material comprised of a metal network which is a homogeneous

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microstructure and a three-dimensional network structure as in the presently claimed invention.


In view of these considerations, it is respectfully submitted that the rejection of claims 10-13 under 35 USC 102(b) or, in the alternative, under 35 USC 103(a) and the rejection of claims 16-18 under 35 USC 103(a) over the above discussed reference are overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account Number 02-2275.

Respectfully submitted,

LUCAS & MERCANTI LLP

By   
Klaus P. Stoffel  
Reg. No. 31,668  
475 Park Avenue South  
New York, New York 10016  
(212) 661-8000

Dated: July 13, 2010

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By:   
Klaus P. Stoffel

Date: July 13, 2010